Work Order ID 104485 D2565-105 B104485 *104485*

July-12-13 10:04:18 AM

Item ID:	D2565-101	**Accept**	*N900040100*	**Setup** Start	*NS1*
Revision ID:				Stop	*NS2*
Item Name:	Strut				
Start Date:	7/12/13	**Start Qty:** 6.00	*6*	**Cust Item ID:**	
Required Date:	7/12/13	**Req'd Qty:** 6.00	*6*	**Customer:**	
Reference:					

Approvals: **Process Plan:** MLJ **Date:** 13-07-16 **Tooling:** ______ **Date:** ______ **Run** Start *NR1*

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr D2565	**Revision Nbr** Rev E								S 13/10/10
100 *100* Brake NC	Punch ends and deburr as per dwg NC BRAKE	0.00				6			
Brake NC	**Memo** Punch as per Dwg D2565 using DT 8313	0.00							
110 *110* Small Fab	Small Fab	0.00				6x			13/10/24 DAS 36 9-89
Small Fab	**Memo** Drill hole open to .316 Ø as per Dwg D2565 (one end only) Deburr	0.00							
120 *120* QC	QC5- Inspect part completeness to step on W/O	0.00 DAS 27 9-89				6			
Quality Control	**Memo**	0.00 13.10.24							

DQA: ____________ Date: ____________

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date:

Work Order update only ☐

Work Order: ____________	**DISPOSITION**	**AGAINST DEPARTMENT/PROCESS**			
Part No. ____________	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. ____________	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Suspected Unapproved ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design ☐									
Doc/Data ☐									
Equip/Tooling ☐									
Handling/Pre ☐									
Material ☐									
Operator ☐									
Offset/Setup ☐									
Process ☐									
Supplier ☐									
Training ☐									
Transport ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	**General**			
☐ Bending	☐ Bend	☐ Folio/Program	☐ Outside Dimensions	☐ Pressure/Forced
☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance	☐ Set-up
☐ Cracks	☐ Broken/Damage/Defect	☐ Hardware	☐ Part Incorrect	☐ Temperature/Cure
☐ Crimp/Kink/Ripple/Wave	☐ Burrs	☐ Inspection Incomplete/Unqualified	☐ Part Lost/Missing	☐ Weld
☐ Cuffs	☐ Contamination	☐ Instructions Incomplete/Unclear	☐ Part Moved	☐ Wrong Stock Pulled
☐ Crushing	☐ Countersink	☐ Misaligned/off center	☐ Positioned Wrong	
☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Power Loss/Surge	☐ Other
☐ Inspection Strip in Tube	☐ Drawing	☐ Misread	____________	
☐ Marks/Chatter	☐ Drill Holes	☐ Off-set	____________	
☐ Turning Sequence	☐ Finish	☐ Out of Calibration	____________	
☐ Wave/Twist in Tube	☐ Fit/Function	☐ Out of Sequence		

Work Order ID 104485 *104485*

July-12-13 10:04:18 AM

Item ID: D2565-101 **Accept** *N900040100* **Setup Start** *NS1* **Stop** *NS2*

Revision ID:

Item Name: Strut

Start Date: 7/12/13 **Start Qty:** 6.00 *6* **Cust Item ID:**

Required Date: 7/12/13 **Req'd Qty:** 6.00 *6* **Customer:**

Reference:

Run Start *NR1* **Stop** *NR2*

Approvals: **Process Plan:** ________ **Date:** ________ **Tooling:** ________ **Date:** ________

QC: ________ **Date:** ________ **SPC (Y/N):** ________ **Date:** ________

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.2) per QSI005 4.3-Steel M 126125	0.00				6.	∅	13-10-24.	DAS 34 9-89
	Memo START TIME: 2:30 OVEN TEMPERATURE: 400° FINISH TIME: 3.00	0.00							
140 *140* QC Quality Control	QC3- Inspect Part Finish	0.00	DAS 27 9-89 13 10 25			6			
	Memo	0.00							
150 *150* Packaging Packaging	Identify as per dwg & Stock Location: ST252	0.00				6			DAS 33 9-89 13-10-25
	Memo	0.00							

DQA: ________ Date: ________

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: ________	**DISPOSITION**	**AGAINST DEPARTMENT/PROCESS**			
Part No. ________	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. ________	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Suspected Unapproved ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Folio/Program	☐ Outside Dimensions	☐ Pressure/Forced
☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance	☐ Set-up
☐ Cracks	☐ Broken/Damage/Defect	☐ Hardware	☐ Part Incorrect	☐ Temperature/Cure
☐ Crimp/Kink/Ripple/Wave	☐ Burrs	☐ Inspection Incomplete/Unqualified	☐ Part Lost/Missing	☐ Weld
☐ Cuffs	☐ Contamination	☐ Instructions Incomplete/Unclear	☐ Part Moved	☐ Wrong Stock Pulled
☐ Crushing	☐ Countersink	☐ Misaligned/off center	☐ Positioned Wrong	
☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Power Loss/Surge	☐ Other ________
☐ Inspection Strip in Tube	☐ Drawing	☐ Misread	________	
☐ Marks/Chatter	☐ Drill Holes	☐ Off-set	________	
☐ Turning Sequence	☐ Finish	☐ Out of Calibration	________	
☐ Wave/Twist in Tube	☐ Fit/Function	☐ Out of Sequence		

Work Order ID 104485 *104485*

July-12-13 10:04:18 AM

Item ID: D2565-101 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Strut

Start Date: 7/12/13 **Start Qty:** 6.00 *6* **Cust Item ID:**

Required Date: 7/12/13 **Req'd Qty:** 6.00 *6* **Customer:**

Reference:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** ______________ **Date:** __________ **Tooling:** ____________ **Date:** __________

QC: ______________________ **Date:** __________ **SPC (Y/N):** __________ **Date:** __________

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 *160*	QC21- Final Inspection - Work Order Release	0.00				RM 13/10/29			
QC Quality Control	**Memo**	0.00							MF 13 10 28

DQA: ________ Date: ________

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order update only ☐

Work Order: ____________

Part No. ____________

NCR No. ____________

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Folio/Program	☐ Outside Dimensions	☐ Pressure/Forced
☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance	☐ Set-up
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☐ Crimp/Kink/Ripple/Wave	☐ Burrs	☐ Inspection Incomplete/Unqualified	☐ Part Lost/Missing	☐ Weld
☐ Cuffs	☐ Contamination	☐ Instructions Incomplete/Unclear	☐ Part Moved	☐ Wrong Stock Pulled
☐ Crushing	☐ Countersink	☐ Misaligned/off center	☐ Positioned Wrong	
☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Power Loss/Surge	☐ Other
☐ Inspection Strip in Tube	☐ Drawing	☐ Misread		
☐ Marks/Chatter	☐ Drill Holes	☐ Off-set		
☐ Turning Sequence	☐ Finish	☐ Out of Calibration		
☐ Wave/Twist in Tube	☐ Fit/Function	☐ Out of Sequence		

Picklist Print

July-12-13 10:04:18 AM

Work Order ID: 104485

Parent Item: D2565-101 | **Start Date:** 7/12/13 | **Required Date:** 7/12/13

Parent Item Name: Strut | **Start Qty:** 6.00 | **Required Qty:** 6.00

Comments: IPP: F02.04.16Added dwg Rev.C1NG

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304TR0.750W.049 304 RD Tube .750 x .049W		Purchased	No			100	f	466.3989	1.71	10.8		SB 13/6/10	

Location	Loc Qty	Loc Code	
MAT017	466.3988825		
122312	13.3		
122468	0.0000325		
124768	56.63245		
125068	4.5664		
125513	9.9		
M126183	382		11

DQA: ________ Date: ________

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: ________	**DISPOSITION**	**AGAINST DEPARTMENT/PROCESS**			
Part No. ________	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. ________	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Suspected Unapproved ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design ☐									
Doc/Data ☐									
Equip/Tooling ☐									
Handling/Pre ☐									
Material ☐									
Operator ☐									
Offset/Setup ☐									
Process ☐									
Supplier ☐									
Training ☐									
Transport ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Folio/Program	☐ Outside Dimensions	☐ Pressure/Forced
☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance	☐ Set-up
☐ Cracks	☐ Broken/Damage/Defect	☐ Hardware	☐ Part Incorrect	☐ Temperature/Cure
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☐ Inspection Strip in Tube	☐ Drawing	☐ Misread		
☐ Marks/Chatter	☐ Drill Holes	☐ Off-set		
☐ Turning Sequence	☐ Finish	☐ Out of Calibration		
☐ Wave/Twist in Tube	☐ Fit/Function	☐ Out of Sequence		

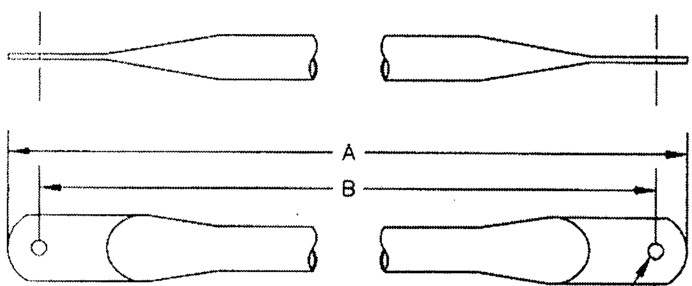
DART

QA COPY ISSUED

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D2565 — REV. E — SHEET 1 OF 1
DATE 04.05.05		TITLE STRUT — SCALE 1:3

RELEASED 04.05.05

REV	DATE	DESCRIPTION
A	96.05.03	NEW ISSUE
B	97.03.15	CORRECT D2565-111 DIM. A
C	98.10.05	UPDATED MATERIAL NOTE (TSR A603)
D	02.06.05	ADD -3XX PARTS; ADD FINISH
E	04.05.05	ADD D2565-401-411; RMV ANGLE D



DIA 0.257 TO BE PUNCHED
"C" DIA TO BE OPENED MANUALLY

PUNCH ENDS PER SPEC CONTROL DRAWING D2638

PART #	A	B	DIA C
D2565-101	20.52	19.72	0.316
D2565-103	18.21	17.41	0.316
D2565-105	20.19	19.39	0.316
D2565-107	13.43	12.63	–
D2565-109	12.31	11.51	–
D2565-111	13.65	12.85	–
D2565-201	22.79	22.00	0.316
D2565-203	20.75	19.95	0.316
D2565-205	21.22	20.42	0.316
D2565-207	16.07	15.27	–
D2565-209	15.16	14.36	–
D2565-211	14.14	13.34	–
D2565-301	27.03	26.23	0.316
D2565-303	25.34	24.54	0.316
D2565-305	23.73	22.93	0.316
D2565-307	20.86	20.06	–
D2565-309	20.17	19.37	–
D2565-311	16.30	15.50	–
D2565-401	18.29	17.49	0.316
D2565-403	15.64	14.84	0.316
D2565-405	19.45	18.65	0.316
D2565-407	10.79	9.99	–
D2565-409	9.34	8.54	–
D2565-411	13.81	13.01	–

WO 104485 MC3 13-07-18

GENERAL NOTES

1) MATERIAL: AISI 304/316/318 SS 0.750 OD X 0.049 WALL
   (REF DART SPEC. M304TR0.750W0.049)
   ENSURE SEAMLESS TUBE IS USED
2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
3) TOLERANCES PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES

DART AEROSPACE LTD

Description: Strut		Work Order: 104485
Inspection Drawing: D2565	Rev: E	Part Number: D2565-101

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
20.52	+/-.030	20.52	✓		T	SB-5
19.72	+/- .030	19.72	✓		T	SB-5
Ø.0316	+/- .005	.0316	✓		V	EB-01
Ø.0257	+/- .005	.0257	✓		V	EB-01

Measured by: DAS 30 9-89	Checked By: SAM DAS 30 9-89	QC inspector: DAS 27 9-89	Engineering Approval (*if necessary*):
Date 13/10/10	Date 13/10/24	Date 13 10 24	Date

H:\FORMS\Quality Assurance\approved QA\Inspection sheet revA